

## Federal Aviation Administration, DOT

## § 29.1

- 29.1383 Landing lights.
- 29.1385 Position light system installation.
- 29.1387 Position light system dihedral angles.
- 29.1389 Position light distribution and intensities.
- 29.1391 Minimum intensities in the horizontal plane of forward and rear position lights.
- 29.1393 Minimum intensities in any vertical plane of forward and rear position lights.
- 29.1395 Maximum intensities in overlapping beams of forward and rear position lights.
- 29.1397 Color specifications.
- 29.1399 Riding light.
- 29.1401 Anticollision light system.

### SAFETY EQUIPMENT

- 29.1411 General.
- 29.1413 Safety belts: passenger warning device.
- 29.1415 Ditching equipment.
- 29.1419 Ice protection.

### MISCELLANEOUS EQUIPMENT

- 29.1431 Electronic equipment.
- 29.1433 Vacuum systems.
- 29.1435 Hydraulic systems.
- 29.1439 Protective breathing equipment.
- 29.1457 Cockpit voice recorders.
- 29.1459 Flight data recorders.
- 29.1461 Equipment containing high energy rotors.

### Subpart G—Operating Limitations and Information

- 29.1501 General.

#### OPERATING LIMITATIONS

- 29.1503 Airspeed limitations: general.
- 29.1505 Never-exceed speed.
- 29.1509 Rotor speed.
- 29.1517 Limiting height-speed envelope.
- 29.1519 Weight and center of gravity.
- 29.1521 Powerplant limitations.
- 29.1522 Auxiliary power unit limitations.
- 29.1523 Minimum flight crew.
- 29.1525 Kinds of operations.
- 29.1527 Maximum operating altitude.
- 29.1529 Instructions for Continued Airworthiness.

#### MARKINGS AND PLACARDS

- 29.1541 General.
- 29.1543 Instrument markings: general.
- 29.1545 Airspeed indicator.
- 29.1547 Magnetic direction indicator.
- 29.1549 Powerplant instruments.
- 29.1551 Oil quantity indicator.
- 29.1553 Fuel quantity indicator.
- 29.1555 Control markings.
- 29.1557 Miscellaneous markings and placards.
- 29.1559 Limitations placard.

- 29.1561 Safety equipment.
- 29.1565 Tail rotor.

### ROTORCRAFT FLIGHT MANUAL

- 29.1581 General.
- 29.1583 Operating limitations.
- 29.1585 Operating procedures.
- 29.1587 Performance information.
- 29.1589 Loading information.

#### APPENDIX A TO PART 29—INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

#### APPENDIX B TO PART 29—AIRWORTHINESS CRITERIA FOR HELICOPTER INSTRUMENT FLIGHT

#### APPENDIX C TO PART 29—ICING CERTIFICATION

#### APPENDIX D TO PART 29—CRITERIA FOR DEMONSTRATION OF EMERGENCY EVACUATION PROCEDURES UNDER § 29.803

#### APPENDIX E TO PART 29—HIRF ENVIRONMENTS AND EQUIPMENT HIRF TEST LEVELS

AUTHORITY: 49 U.S.C. 106(g), 40113, 44701–44702, 44704.

SOURCE: Docket No. 5084, 29 FR 16150, Dec. 3, 1964, unless otherwise noted.

## Subpart A—General

### § 29.1 Applicability.

(a) This part prescribes airworthiness standards for the issue of type certificates, and changes to those certificates, for transport category rotorcraft.

(b) Transport category rotorcraft must be certificated in accordance with either the Category A or Category B requirements of this part. A multien-gine rotorcraft may be type certified as both Category A and Category B with appropriate and different operating limitations for each category.

(c) Rotorcraft with a maximum weight greater than 20,000 pounds and 10 or more passenger seats must be type certificated as Category A rotorcraft.

(d) Rotorcraft with a maximum weight greater than 20,000 pounds and nine or less passenger seats may be type certificated as Category B rotorcraft provided the Category A requirements of Subparts C, D, E, and F of this part are met.

(e) Rotorcraft with a maximum weight of 20,000 pounds or less but with 10 or more passenger seats may be type certificated as Category B rotorcraft provided the Category A requirements

## § 29.2

of §§ 29.67(a)(2), 29.87, 29.1517, and subparts C, D, E, and F of this part are met.

(f) Rotorcraft with a maximum weight of 20,000 pounds or less and nine or less passenger seats may be type certificated as Category B rotorcraft.

(g) Each person who applies under Part 21 for a certificate or change described in paragraphs (a) through (f) of this section must show compliance with the applicable requirements of this part.

[Amdt. 29-21, 48 FR 4391, Jan. 31, 1983, as amended by Amdt. 29-39, 61 FR 21898, May 10, 1996; 61 FR 33963, July 1, 1996]

### § 29.2 Special retroactive requirements.

For each rotorcraft manufactured after September 16, 1992, each applicant must show that each occupant's seat is equipped with a safety belt and shoulder harness that meets the requirements of paragraphs (a), (b), and (c) of this section.

(a) Each occupant's seat must have a combined safety belt and shoulder harness with a single-point release. Each pilot's combined safety belt and shoulder harness must allow each pilot, when seated with safety belt and shoulder harness fastened, to perform all functions necessary for flight operations. There must be a means to secure belts and harnesses, when not in use, to prevent interference with the operation of the rotorcraft and with rapid egress in an emergency.

(b) Each occupant must be protected from serious head injury by a safety belt plus a shoulder harness that will prevent the head from contacting any injurious object.

(c) The safety belt and shoulder harness must meet the static and dynamic strength requirements, if applicable, specified by the rotorcraft type certification basis.

(d) For purposes of this section, the date of manufacture is either—

(1) The date the inspection acceptance records, or equivalent, reflect that the rotorcraft is complete and meets the FAA-Approved Type Design Data; or

(2) The date that the foreign civil airworthiness authority certifies the rotorcraft is complete and issues an

## 14 CFR Ch. I (1-1-16 Edition)

original standard airworthiness certificate, or equivalent, in that country.

[Doc. No. 26078, 56 FR 41052, Aug. 16, 1991]

### Subpart B—Flight

#### GENERAL

#### § 29.21 Proof of compliance.

Each requirement of this subpart must be met at each appropriate combination of weight and center of gravity within the range of loading conditions for which certification is requested. This must be shown—

(a) By tests upon a rotorcraft of the type for which certification is requested, or by calculations based on, and equal in accuracy to, the results of testing; and

(b) By systematic investigation of each required combination of weight and center of gravity, if compliance cannot be reasonably inferred from combinations investigated.

[Doc. No. 5084, 29 FR 16150, Dec. 3, 1964, as amended by Amdt. 29-24, 49 FR 44435, Nov. 6, 1984]

#### § 29.25 Weight limits.

(a) *Maximum weight.* The maximum weight (the highest weight at which compliance with each applicable requirement of this part is shown) or, at the option of the applicant, the highest weight for each altitude and for each practicably separable operating condition, such as takeoff, enroute operation, and landing, must be established so that it is not more than—

(1) The highest weight selected by the applicant;

(2) The design maximum weight (the highest weight at which compliance with each applicable structural loading condition of this part is shown); or

(3) The highest weight at which compliance with each applicable flight requirement of this part is shown.

(4) For Category B rotorcraft with 9 or less passenger seats, the maximum weight, altitude, and temperature at which the rotorcraft can safely operate near the ground with the maximum wind velocity determined under § 29.143(c) and may include other demonstrated wind velocities and azimuths. The operating envelopes must